

THE FIRST RECORDS OF THE KELP GULL IN SOUTH-WESTERN AUSTRALIA

By JULIAN FORD, Perth.

The Kelp or Southern Black-backed Gull (*Larus dominicanus*) is a common resident of southern South America, South Africa, New Zealand and most of the sub-antarctic islands; but only during the last two decades has it been observed in Australia. Its ecological equivalent in the Australian region was considered to be the Pacific Gull (*L. pacificus*), previously the only large gull that occurred in Australia and Tasmania. These two gulls are somewhat similar morphologically but are not particularly closely related: the Kelp Gull is probably a derivative of the Lesser Black-backed Gull (*L. fuscus*)—Herring Gull (*L. argentatus*) assemblage or possibly the Great Black-backed Gull (*L. marinus*) of the northern hemisphere and indeed may be a subspecies of the former (White, 1952); on the other hand, the Pacific Gull may have its closest affinities with the Japanese Gull (*L. crassirostris*) of eastern Asia and the Siméon Gull (*L. belcheri*) of western South America, as it is rather similar to them in general proportions, bill coloration and primary pattern (Moynihan, 1959).

In New Zealand, the Kelp Gull has undergone a marked increase in abundance since European settlement (Oliver, 1955), a fact which may account for the recent colonisation of eastern Australia, since the first arrivals apparently were New Zealand vagrants resulting from the population expansion. The species was first seen in eastern Australia at Botany Bay in January 1943 (McGill, 1943), and has since been observed in numbers in New South Wales (McGill, 1955), Victoria (Wood, 1955) and Tasmania (Wall, 1956). A pair was discovered breeding on Moon Island, New South Wales, in November 1958 (Gwynne and Gray, 1959).

The Kelp Gull was first observed in Western Australia by Mr. and Mrs. J. D. Watson at Middleton Beach, Albany, on October 28, 1963, during the annual field-outing of the Royal Australasian Ornithologists' Union. The single bird was later seen by most of the ornithologists, including myself, who attended the Albany excursion, and was last seen on October 31. A field description by Mr. Watson is as follows:

"Generally similar to the Pacific Gull but slightly smaller. Plumage dull slaty-black on wings and back, remainder white; bill, yellowish with a pronounced orange patch on the lower mandible; eye, white; legs, yellowish. The most outstanding feature was that when the bird lifted into the strong wind and fanned its tail widely, the tail feathers were seen to be all white with the exception of the two outer feathers which each had a black spot the size of sixpence about one inch from the extremity."

From descriptions on the various plumage stages in this species (Murphy, 1936), the individual was in its third year.

On February 5, 1964, during a faunal survey of the islands at Jurien Bay, 125 miles north of Perth, I observed a single Kelp Gull; it was resting on the beach in the company of a large mixed flock

of Crested Terns (*Sterna bergii*), Fairy Terns (*S. nereis*), Silver Gull (*Larus novae-hollandiae*) and several species of waders at the west end of Boullanger Island, opposite Whitlock Island. Both of the two large gulls were first thought to be Pacific Gulls because of their close similarity. When I flushed them, however, they were readily differentiated on the basis of the Kelp Gull having a wholly white tail, and the Pacific Gull, a subterminal black band on an otherwise white tail. On closer study, the bill of the Kelp Gull was seen to be noticeably less robust and paler than that of the Pacific Gull. Despite the certainty of my identification, it was decided to collect the Kelp Gull because the latitude was so far north of the only previously known locality of the species in Western Australia. This was successfully carried out the following day. Details of the specimen (W.A. Museum no. A9369) are as follows:

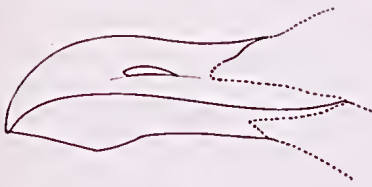


Fig. 1.—Bill of Kelp Gull
(W.A. Mus. no. A9369)

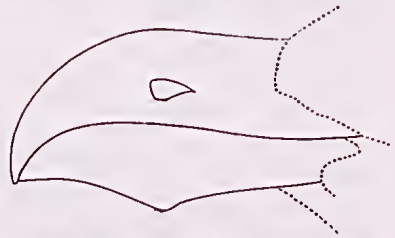


Fig. 2.—Bill of Pacific Gull
(W.A. Mus. no. 7073)

White, except for slaty-black back and wings. Tail, pure white. Secondaries with broad terminal white band and thus there is a complete white band on the trailing edge of the outstretched wing. Tenth primary with a broad subterminal band of white and a white tip. Ninth primary with a subterminal white spot. Other primaries tipped white. The seventh, sixth and fifth primaries with a light subterminal tongue, more prominent on the inner edge. The bird was thus in full adult plumage, which is attained in the fifth year (Kinsky, 1963).

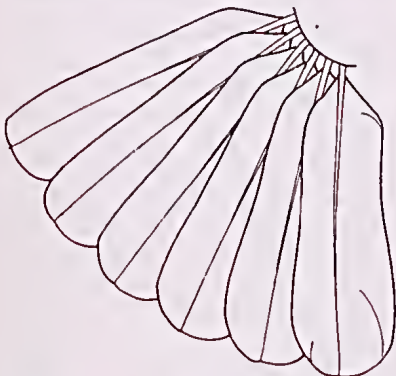


Fig. 3.—Tail quills of adult
Kelp Gull

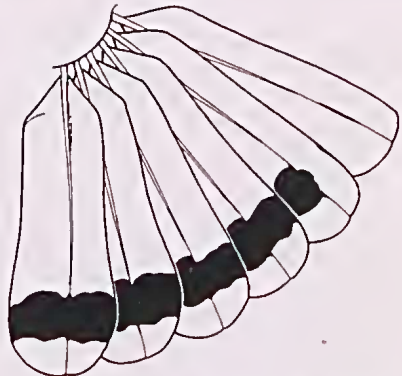


Fig. 4.—Tail quills of adult
Pacific Gull

Bill, yellow with large reddish spot on the gonys of lower mandible. Legs, greenish yellow. Reddish eirelet of skin around eye.

Dimensions: exposed culmen, 50 mm.; wing, 399; tail, 159; tarsus, 60. Female with small ovary and unconvoluted oviduct. Moults: first and second primaries are new and about half grown, the third is about one inch out of its sheath, the fourth is missing, and the remaining primaries are old and worn; there are 12 rectrices which are also old and worn.

That the individual was mated with the single adult Pacific Gull can be dismissed in view of the unconvoluted condition of the oviduct, a diagnostic feature of female birds that have not laid eggs. Although the Kelp Gull was mainly seen with the Pacific Gull, the association merely appeared to be a loose one. The day on which the Kelp Gull was collected, the Pacific Gull was seen with two juvenile birds which no doubt were its progeny of the 1963 spring breeding period.

It is probable that the Kelp Gull arrived in Western Australia by a movement westwards from eastern Australia and New Zealand despite it not having been reported from South Australia. However, since it occurs on the sub-antarctic islands to the south-west of Western Australia, viz., Heard, Kerguelen, St. Paul, Amsterdam and Crozet Islands, the possibility should not be excluded that it might have arrived from this area, being assisted by the strong westerly winds of the southern ocean. Unfortunately no consistent differences characterise the various populations of the gull (Murphy, *loc. cit.*; Oliver, *loc. cit.*); so its origin cannot be deduced from its dimensions and coloration.

With the arrival of the Kelp Gull in southern Australia, an interesting biological situation has arisen because the long established Pacific Gull occupies an ecological niche apparently identical to that of the invader, and therefore the course of the invasion in the face of any resultant interspecific competition should be closely followed. The fact that the Pacific Gull is thinly distributed on the west coast of Western Australia between Geraldton and Perth (Ford, 1963) may be to the Kelp Gull's advantage in becoming established in this State. In parts of the northern hemisphere, several large gull species, some of which are very closely related to each other, live side by side.

I am indebted to Miss C. A. Nicholls for the accompanying illustrations.

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DENISONIA MONACHUS, A NEW ELAPID SNAKE FROM WESTERN AUSTRALIA

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Holotype: R20606 (in Western Australian Museum) collected by Mr. John Douglas on June 26, 1963.

Type Locality: Kalgoorlie, Western Australia; Lat. 30° 43' S, Long. 121° 27' E.

Paratypes (all in Western Australian Museum): R21217 (Overlander, 20 mi. E. of Hamelin Pool), R9845 (Bluff Point, Geraldton), R1718-9 and R21221 (Newmarracarra), R2918 (Mingenew), R4843 (Three Springs), R15132 (Perenjori), R1273-4 (Bunjil), R6589 (Gidgee, 60 mi. N. of Sandstone), R1111 and R2992 (Booylgoo Spring), R14368 and R19776-7 (Kathleen Valley), R11475 (Laver-ton), R17682 (Mt. Margaret), R450 ("Goldfields"), and R15084 (Naretha).

Diagnosis: Of the black-headed species of *Denisonia* with 15 rows of dorsals, *monachus* is most like *gouldi* (Gray), from which it is distinguishable by its single posterior temporal and its unbroken black hood which extends on to the first 1-5 (mostly 3 or 4) vertebrae. [*D. gouldi* has 2 posterior temporals, and the black of the hood, except in melanic specimens, is broken by a pale spot on the preocular, etc. and extends back to the first 5-8 (mostly 6 or 7) vertebrae.]

Description: A small, moderately slender snake with a depressed head and short tail (10-12% of total length). Largest specimen (R11475: 453 (408 + 45) mm. No canthus rostralis.

Rostral wider than high. Nasal entire and almost always in contact with the single preocular, either forming a short suture with it or merely touching it. Suture between internasals nearly always shorter than suture between prefrontals. Frontal from $1\frac{1}{4}$ to a little more than $1\frac{1}{2}$ times as long as wide, as long as or slightly shorter than the suture between the parietals, and from $2\frac{1}{4}$ to $3\frac{1}{4}$ times as wide as supraocular. Two subequal postoculals. One (in 30% of specimens) or two anterior temporals (the lower occasionally reaching the lip). One posterior temporal. Six upper labials, the first smallest, the last largest, and the third and fourth entering the orbit. Seven lower labials, the last smallest, the fourth largest, and the first three (occasionally four) in contact with the anterior chin-